

EliteUG Zn Reduction Column

Instruction Manual

V1.0.2

The EliteUG Zn Reduction Column is filled with 99.99% high-purity zinc powder as the packing material. It is a specialized reduction chromatographic column developed for the detection of vitamin K1 in food according to national standards, fully complying with the requirements of GB 5009.158-2016 "Determination of Vitamin K1 in Foods".

1. Acceptance

After receiving the restored column, carefully check the following items:
Is the packaging intact?
Presence of collision marks on the surface of the column;
Please verify the purchased items against the above instructions.

2. Install

The EliteUG Zn reduction column is shipped with pure methanol as the solvent. For the first use, please rinse with pure methanol at a low flow rate (0.2-0.5 mL/min) for at least 30 minutes before conducting experiments.

EliteUG Zn reduction column is installed between the chromatographic column outlet and the detection cell inlet.

During the loading and unloading of the reduction column, care must be taken to prevent bubble ingress. Prior to installing the reduction column, all bubbles in the instrument tubing should be purged.

3. Sample preparation

Samples are typically dissolved using the mobile phase. If the mobile phase fails to dissolve the sample, adjust parameters such as pH value and salt concentration as much as possible to avoid salt precipitation during analysis. Prior to injection, the sample must be filtered through a 0.45 µm microporous membrane. This step is mandatory even if no visible particles are present in the sample solution, as insoluble particles may exist in the solution in various forms.

4. Column maintenance

When using the EliteUG reduction column, first rinse the column with pure methanol to activate it, followed by conducting the experiment at the required flow rate.

After the reduction column is used, promptly flush the salt-containing mobile phase from both the chromatographic column and the reduction column, then replace the solvent with pure methanol. Finally, remove the chromatographic column and reduction column from the instrument and tighten the plastic plugs.

EliteUG Zn reduction column should be kept away from pure water and contact with corrosive or humid gases. Store at room temperature (10-30°C).

5. Column regeneration

By following the aforementioned procedures during operation, faults can be avoided and the service life of the reversed column can be extended. If performance degradation occurs during use, column regeneration may be performed according to the following methods.

The zinc powder reduction column can be rinsed with pure methanol for 1 hour.

6. Quality assurance

(1) Factory inspection report

Each reduction column undergoes rigorous quality inspection prior to shipment. The solvent stored in the chromatographic columns upon delivery is pure methanol.

(2) Guarantee

You have received the EliteUG Zn zinc powder reduction column. Please immediately inspect the outer wall of the column tube and evaluate its performance. If you do not obtain satisfactory data, contact your agent or us directly within two weeks. Note that the lifespan of the reduction column depends on various factors including operating conditions, sample types, usage frequency, operator experience, and operational environment. No definitive warranty is provided.

Order details for EliteUG Zn zinc powder reduction column:

Specifications	P/N
ID4.6×50	3111-d0090-031
ID4.6×30	3111-d0090-021

Scan the QR code for more product information



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